



Neurotechnology Research Systems

OptoPlex with PlexBright Software Control LED-based Optogenetic Stimulation System

Features

- Laser-like power output at an affordable price
- Compact
- Multiple wavelengths available (460/470, 525, 590, 615/625 nm)
- Digital input to trigger from external device
- Analog input for arbitrary amplitude modulation
- Steady luminance output over time
- Configurations for both acute and chronic experiments
- Software control for multiple fiber-coupled LEDs (COMING SOON)
- LED mounts to commutators (COMING SOON)

Description

The Plexon OptoPlex LED based optical stimulation system is an affordable, turn-key solution for optogenetic experiments. Using new LED-fiber coupling technology, the OptoPlex system can deliver power output comparable to that of high-priced lasers. With the LED light source, the OptoPlex system provides more constant light output over time compared to many laser systems, which suffer from varying light output over time due to temperature changes.

The OptoPlex light stimulation system is a flexible optogenetic stimulation solution, and is available in multiple wavelength options - 460/470, 525, 590 and 615/625 nm. The LED module can be configured with either 125/140 μm or 200/230 μm (ID/OD) fibers for use in both chronic and acute preparations. All necessary accompanying interconnects and implantable ferrules are available through Plexon.

The OptoPlex system will soon be available with integrated software to control up to four fiber-coupled LEDs simultaneously.



LED Module with Output Fiber



LED Control Module

OptoPlex Technical Specifications

LED Wavelengths	460/470 nm (blue), 525 nm (green), 590 nm (amber), 615/625 nm (red)
Fibers	125/140 μm and 200/230 μm (ID/OD)
Power output(*)	up to 15 mW power with blue light through 200/230 μm (ID/OD) fiber; 477 mW/mm ²
Implantable ferrules and interconnects	Various, customizable

(*) Constant illumination; higher when pulsed

For more information or a quotation, contact:
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4-channel PlexBright LED Control Software